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10/723,058	11/26/2003	Michael Roberts	NECW 20.768	8639

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EXAMINER	
FIGUEROA, MARISOL	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
08/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,058	ROBERTS, MICHAEL	
	Examiner	Art Unit	
	Marisol Figueroa	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/08/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection. See rejection below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 5-7** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 5 recites the limitations of "a mobile terminal... comprising: means for receiving by the mobile terminal from the network information that a current cell is saturated requiring a handover in the network... wherein the network sends to the mobile terminal the second group of

system information after sending the information that the current cell is saturated", in lines 1-4 and 18-19.

The Examiner cannot find where in the disclosure and drawings the mobile terminal receives from the network information that a current cell is saturated requiring a handover in the network, and wherein the network sends to the mobile terminal the second group of system information after sending the information that the current cell is saturated. On page 4, lines 18-25 of the specification, discloses that the following description relates to an implementation of the method in a GSM/GPRS network in which a mobile terminal is located in a saturated cell of the GSM network. Therefore, a procedure of handover regarding the mobile terminal from the saturated cell towards a cell comprising sufficient radio resources for continuing the communications has to be implemented. However, there is no disclosure that the mobile terminal receives from the network information that a current cell is saturated requiring a handover in the network, and wherein the network sends to the mobile terminal the second group of system information after sending the information that the current cell is saturated.

Applicant is welcomed to point out where in the specification the Examiner can find support for the above-mentioned limitations if the Applicant believes that the specification supports the limitations.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over LAITINEN et al. (US 2003/0189912 A1) in views of KALLIN et al. (US 5,701,585) and DAHLIN (US 5,749,055).

Regarding claim 1, Laitinen discloses a method of handover in a multimode mobile telecommunication network (paragraph [0005] lines 1-6), comprising:

sending by the network to a mobile to a mobile terminal a first group of system information via a first channel associated with circuit switching services and a second group of system information via a second channel associated with packet switching services (paragraph [0025]; a dual-mode MS receives information of 3G neighbor Cell list in a SI2quater message from the BCCH channel and a PSI3quarter message on the PBCCH channel),

c) performing measurement at least in one neighboring cell on a basis of information contained in the second group of system information (paragraphs [0024]-[0026], and [0058] lines 1-10; the mobile station construct a 3G Neighbor Cell list from the received information on the PBCCH and measures the cells contained in the 3G Neighbor Cell list),

d) sending to the network the measurements performed in step c) (paragraph [0058] lines 7-10; the mobile station reports the measurements to the network),

g) initiating the procedure of handover according to the measurements performed (paragraph [0005] lines 1-6 and [0019]; the network commands the MS to perform handover, if necessary, according to the measurements),

wherein the network sends to the mobile terminal the first group of system information via the first channel after the performing measurements step (paragraphs [0006]-[0007], [0011],

[0025], and [0058]; when the mobile station transitions from a GPRS dedicated mode to a GSM dedicated mode, the MS immediately make measurements and reports on 3G cells based on packet system information (PSI3) received over the PBCCH (i.e., second channel) while in a GPRS dedicated mode, then while the MS is in GSM dedicated mode, the MS receives system information (SI2) via a BCCH (i.e., first channel) corresponding to a first group of system information).

But, Laitinen does not expressly disclose the features of the network determines that the mobile terminal is in a saturated cell in order to initiate a handoff and send to the mobile terminal the system information (i.e., neighboring cell information), and

the step e) of further performing measurements at least in one further neighboring cell on the basis of the information contained in the second group of system information, and further sending to the network the measurements performed in step e), the further sending operation being performed in a message distinct from the sending step d).

However, Dahlin teaches a network that determines that a mobile terminal is in a saturated cell in order to initiate a handoff and send to the mobile terminal system information (Fig. 4; col. 11, lines 31-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of wherein the network determines that a mobile terminal is in a saturated cell in order to initiate a handoff and send to the mobile terminal system information, as suggested by Dahlin, in order for the network to redistribute the traffic level within the congested cell by handing over the mobile terminals (col. 11, lines 45-52).

And, Kallin teaches a mobile assisted handoff for use in a cellular communication system in which the mobile station receives or is assigned a list of cells and measures the quality level of each assigned cell and regularly reports the measurements (i.e., different measurement reports) to the communication system. A mobile station is only capable of measuring 12 channels and cannot measure all of the neighboring cells at the same time, and since it is more important to guarantee uninterrupted service than temporary capacity improvements, all the neighboring cells should be included in part of the measurement. Furthermore, the mobile station can perform further measurements until a good candidate for handoff is found (col. 1, line 54-col. 2, lines 1-16; col. 3, line 67-col. 4, lines 1-30; col. 5, lines 14-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of performing further measurements at least in one further neighboring cell on the basis of the information contained in the second group of system information and sending the measurements in a distinct message, as suggested by Kallin, because it is conventionally well known that in a mobile assisted handoff (as used in Laitinen) a mobile terminal regularly measure and reports (i.e., distinct messages) the quality level of each of the cells assigned to the mobile terminal in order to find a good candidate for handoff. Furthermore, it would provide the advantage of measuring and considering all the neighboring cells for handoff when the mobile station cannot measure all the neighboring cell at the same time (col. 4, lines 1-30; col. 5, lines 14-44).

Regarding claim 2, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 1, in addition Laitinen discloses wherein the measurements in a neighboring cell based on information contained in the first group of system information associated with

circuit switching services (paragraph [0005] lines 1-4 and paragraph [0006] lines 10-17; in the GSM dedicated mode, i.e. circuit switched connection, the MS receives system information (SI2), corresponding to a first group of system information, over a BCCH channel).

Regarding claim 3, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 2, in addition Laitinen discloses wherein the telecommunication network is a GSM/GPRS network (paragraph [0019]; it is inherent to recognize that the telecommunication network is a GSM/GPRS network since the MS is dual mode GSM/UMTS and compatible with a GPRS network), and wherein the first channel is a BCCH channel and the second channel is a PBCCH channel (paragraph [0025]; the MS receives a SI2quarter message from a BCCH channel and a PSI3quarter message from a PBCCH channel).

Regarding claim 4, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 2, in addition Laitinen discloses wherein the telecommunication network is a UMTS network (paragraph [0019] lines 1-3; it is inherent to recognize that the telecommunication network is also a UMTS network because the MS station is a dual mode terminal compatible with a multimode network, i.e. GSM, GPRS, and UMTS).

Regarding claim 5, Laitinen discloses a mobile terminal used in a multimode mobile telecommunication network (paragraph [0019] lines 1-3), comprising:

means for performing measurements depending in either on a first group of system information sent by the network to the mobile terminal via a circuit switching channel or on a second group of system information sent by the network to the mobile terminal via a packet switching channel (paragraphs [0005]-[0008], and [0058]),

means for performing measurements at least in one neighboring cell on a basis of information contained in the second group of system information, means for sending to the network the measurements performed (Fig. 1- MS 100; paragraphs [0024]-[0026], and [0058] lines 1-10; the mobile station construct a 3G Neighbor Cell list from the received information on the PBCCH and measures and reports the cells contained in the 3G Neighbor Cell list), and

means for initiating the procedure of handover according to the measurements performed (paragraph [0005] lines 1-6; the network commands the MS to perform handover, if necessary, according to the measurements),

wherein the network is adapted to send to the mobile terminal the first group of system information via the first channel after the performing measurements operation (paragraphs [0006]-[0007], [0011], [0025], and [0058]; when the mobile station transitions from a GPRS dedicated mode to a GSM dedicated mode, the MS immediately make measurements and reports on 3G cells based on packet system information (PSI3) received over the PBCCH (i.e., second channel) while in a GPRS dedicated mode, then while the MS is in GSM dedicated mode, the MS receives system information (SI2) via a BCCH (i.e., first channel) corresponding to a first group of system information).

But, Laitinen does not expressly disclose wherein the mobile terminal comprises means for receiving from the network information that a current cell is saturated requiring a handover in the network, wherein the network sends to the mobile terminal the second group of system information (i.e., neighboring cell information) after sending the information that the current cell is saturated, and

further means for performing further measurements at least in one further neighboring cell in the basis of information contained in the second group of system information, and further means for sending to the network the further measurements performed, wherein the further measurements are sent in a message distinct from the sending of the measurements.

However, Dahlin teaches a mobile terminal having means for receiving from the network information that a current is saturated requiring a handover in the network, wherein the network sends system information (Fig. 4; col. 11, lines 31-55).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen for the mobile terminal to comprise means for receiving from the network information that a current is saturated requiring a handover in the network, wherein the network sends system information, as suggested by Dahlin, in order for the network to indicate the mobile terminal the need for redistribution of the traffic level within the congested cell (col. 11, lines 45-52).

And, Kallin teaches a mobile assisted handoff for use in a cellular communication system in which the mobile station receives or is assigned a list of cells and measures the quality level of each assigned cell and regularly reports the measurements (i.e., different measurement reports) to the communication system. A mobile station is only capable of measuring 12 channels and cannot measure all of the neighboring cells at the same time, and since it is more important to guarantee uninterrupted service than temporary capacity improvements, all the neighboring cells should be included in part of the measurement. Furthermore, the mobile station can perform further measurements until a good candidate for handoff is found (col. 1, line 54-col. 2, lines 1-16; col. 3, line 67-col. 4, lines 1-30; col. 5, lines 14-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of performing further measurements at least in one further neighboring cell on the basis of the information contained in the second group of system information and sending the measurements in a distinct message, as suggested by Kallin, because it is conventionally well known that in a mobile assisted handoff (as used in Laitinen) a mobile terminal regularly measure and reports (i.e., distinct messages) the quality level of each of the cells assigned to the mobile terminal in order to find a good candidate for handoff. Furthermore, it would provide the advantage of measuring and considering all the neighboring cells for handoff when the mobile station cannot measure all the neighboring cell at the same time (col. 4, lines 1-30; col. 5, lines 14-44).

Regarding claim 6, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 1, in addition Laitinen discloses wherein the means for performing measurements step is performed the measurements immediately upon receipt of the second group of system information (paragraph [0058]; the MS immediately perform measurements on system information received over the PBCCH when it enters the GSM dedicated mode).

Regarding claim 7, the combination of Laitinen, Dahlin, and Kallin disclose the mobile terminal according to claim 5, in addition Laitinen discloses wherein the means for performing measurements is adapted to perform the measurements immediately upon receipt of the second group of system information (paragraph [0058]; the MS immediately perform measurements on system information received over the PBCCH when it enters the GSM dedicated mode).

Regarding claim 8, Laitinen discloses a handover method for a mobile terminal in a mobile communication network, comprising:

sending by the network to the mobile terminal packet system information via a packet switching channel, the packet system information including GPRS frequencies for neighboring cells (paragraph [0025]; a dual-mode MS receives information of 3G neighbor Cell list (i.e., GPRS cells) in a PSI3quarter message on the PBCCH channel (i.e., packet switched channel));

performing measurements by the mobile terminal, based on the packet system information, in a first neighboring cell (paragraphs [0024]-[0026], and [0058] lines 1-10; the mobile station construct a 3G Neighbor Cell list from the received information on the PBCCH and measures the cells contained in the 3G Neighbor Cell list (i.e., GPRS cell));

sending to the network a result of the measurements performed on the first neighboring cell (paragraph [0058] lines 7-10; the mobile station reports the measurements to the network);

initiating a handover according to the result of the measurements (paragraph [0005] lines 1-6 and [0019]; the network commands the MS to perform handover, if necessary, according to the measurements); and

after the step of performing measurements by the mobile terminal, the network sends to the mobile terminal circuit system information via a circuit switching channel, the circuit system information including GSM frequencies for neighboring cells (paragraphs [0006]-[0007], [0011], [0025], and [0058]; when the mobile station transitions from a GPRS dedicated mode to a GSM dedicated mode, the MS immediately make measurements and reports on 3G cells based on packet system information (PSI3) received over the PBCCH (i.e., packet switched channel) while in a GPRS dedicated mode, then while the MS is in GSM dedicated mode, the MS receives system information (SI2) via a BCCH (i.e., circuit switched channel) corresponding to a first group of system information).

But, Laitinen does not particularly disclose that the network sends the system information (i.e., neighboring cell information) to the mobile terminal in response to a determination that the mobile terminal is in a saturated cell, and the step of further performing further measurements by the mobile terminal, based on the packet system information in at least one further neighboring cell; further sending to the network a further result of the further measurements performed on the at least one further neighboring cell, the further sending being performed in a message distinct from the step of sending to the network the result of the measurements.

However, Dahlin teaches a network that determines that a mobile terminal is in a saturated cell and sends in response, system information to the terminal in order to initiate handoff (Fig. 4; col. 11, lines 31-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of wherein the network determines that a mobile terminal and in response sends to the mobile terminal system information to the mobile terminal, as suggested by Dahlin, in order for the network to redistribute the traffic level within the congested cell by handing over the mobile terminals (col. 11, lines 45-52).

And, Kallin teaches a mobile assisted handoff for use in a cellular communication system in which the mobile station receives or is assigned a list of cells and measures the quality level of each assigned cell and regularly reports the measurements (i.e., different measurement reports) to the communication system. A mobile station is only capable of measuring 12 channels and cannot measure all of the neighboring cells at the same time, and since it is more important to guarantee uninterrupted service than temporary capacity improvements, all the neighboring cells should be included in part of the measurement. Furthermore, the mobile station can perform

further measurements until a good candidate for handoff is found (col. 1, line 54-col. 2, lines 1-16; col. 3, line 67-col. 4, lines 1-30; col. 5, lines 14-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of performing further measurements in at least one further neighboring cell and sending the measurements in a distinct message, as suggested by Kallin, because it is conventionally well known that in a mobile assisted handoff (as used in Laitinen) a mobile terminal regularly measure and reports (i.e., distinct messages) the quality level of each of the cells assigned to the mobile terminal in order to find a good candidate for handoff. Furthermore, it would provide the advantage of measuring and considering all the neighboring cells for handoff when the mobile station cannot measure all the neighboring cell at the same time (col. 4, lines 1-30; col. 5, lines 14-44).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-

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